

इंटरनेट

मानक

Disclosure to Promote the Right To Information

Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

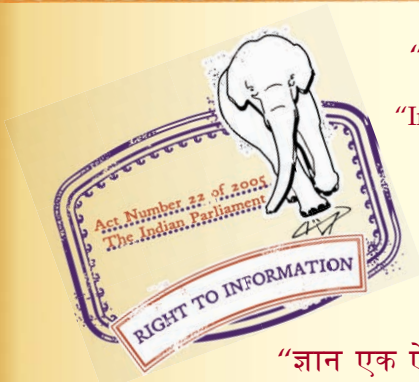
“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 10810-26 (1984): Methods of test for cables, Part 26: pH value of water extract test of insulating paper [ETD 9: Power Cables]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”

BLANK PAGE



Indian Standard

METHODS OF TEST FOR CABLES

PART 26 pH VALUE OF WATER EXTRACT TEST OF INSULATING PAPER

- 1. Scope** — This method is designed to indicate the active and the total acidity or alkalinity of an aqueous extract of insulating papers for electric cables. Since the aqueous extracts of most untreated papers used for electrical insulation are normally unbuffered and are readily affected by atmospheric conditions, this method embodies features to minimize errors from this source.
- 2. Significance** — The pH determination measures the extent to which the paper alters the hydrogen-hydroxyl equilibrium of pure water : and the acidity-alkalinity determination measures the quantity of extracted ionic material that contributes to that equilibrium change. Such constituents may represent potential short comings, either initially, or after prolonged service, of electrical equipment using this paper. This test is useful for routine and acceptance testing, research work or in evaluation of different materials.
- 3. Terminology** — The active and total acidity or alkalinity of an aqueous extract of electrical insulating paper is expressed as numerical value.
- 4. Apparatus**
- 4.1 Flask (Borosilicate Glass or Quartz)** — 250 ml capacity having negligible effect on the pH value of water with a ground reflux condenser of the same quality glass or quartz.
- 4.2 pH-Meter** — Or suitable colorimetric indicator.
- 4.3 Hot Plate**
- 5. Material** — Distilled water, having a conductivity not exceeding 5 micromhos/cm.
- 6. Test Specimen** — Paper weighing at least 5 g cut into small pieces approximately 1 cm², are taken. Thoroughly mix the specimen and during preparation, avoid any contamination by handling.
- 7. Conditioning** — Specimen shall be conditioned by first partially drying it by subjecting it to a temperature of 60° C for 10 min and then freely exposing it in an atmosphere having a relative humidity of 65 ± 2 percent and a temperature of 27 ± 2° C for a period of not less than 24 hours.
- 8. Procedure**
- 8.1** Five grams of test specimen after conditioning shall be placed in a 250 ml flask together with 100 ml distilled water. The flask shall be fitted with a ground reflux condenser. The water shall be boiled gently for 10 minutes, then cooled to room temperature and filtered through a washed filter paper. The pH value of the filtrate shall be determined by using a pH-meter or suitable colorimetric indicator.

9. Tabulation of Observations

Sample No.	pH Value

10. Calculation — Nil.

11. Report

11.1 Test of pH Value of Water Extract of Insulating Paper

Cable Type

Batch No./Lot No.

Cable No./Drum No.

Date of Testing

11.2 Results

Reference specification _____

<i>Specimen No.</i>	<i>pH Value of Water Extract</i>	
	Observed	Specified

11.3 Conclusion — The specimen meets/does not meet the requirement of specification.